

Reproduction as a driver of Turkish Dairy Farming

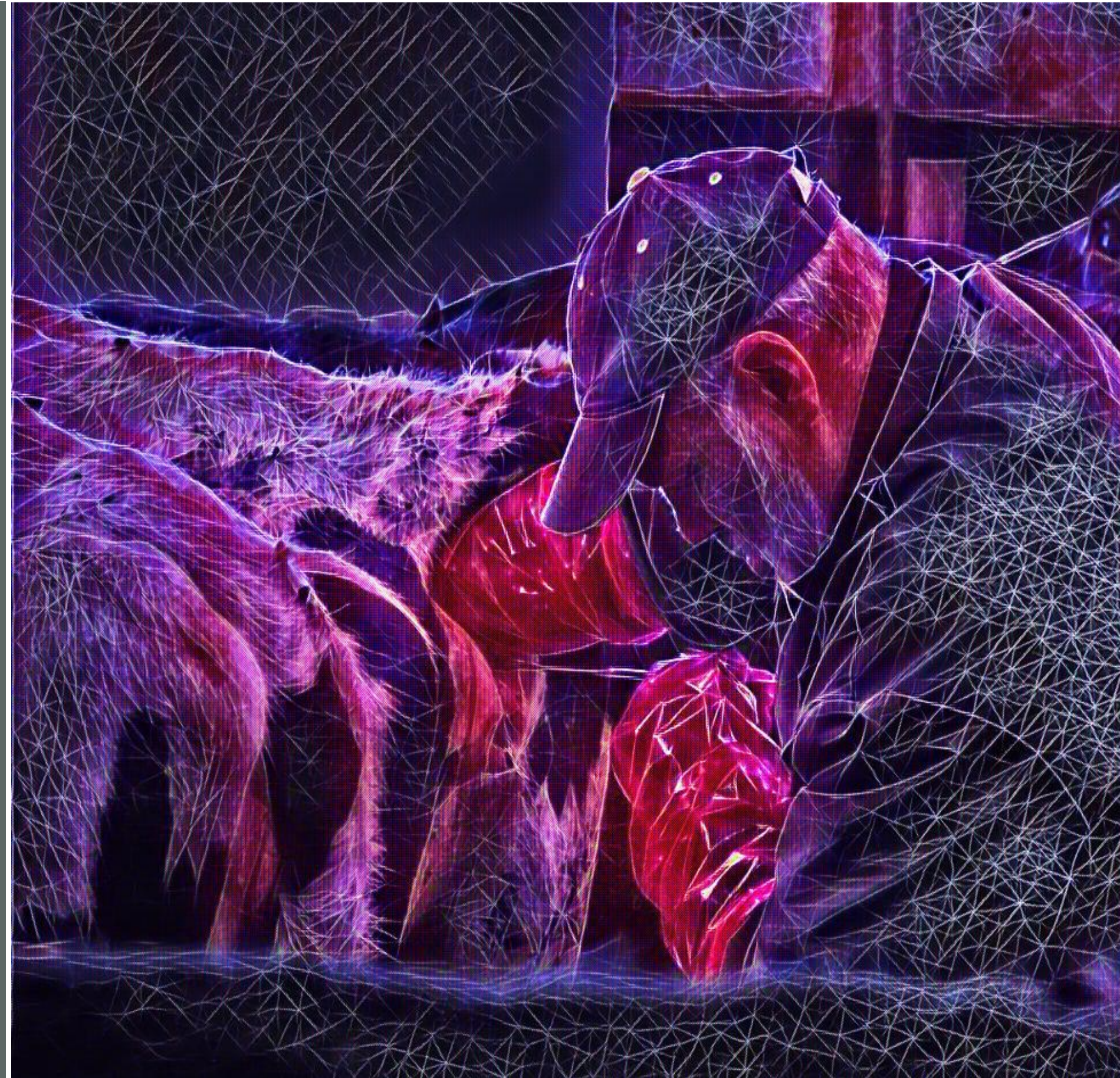
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Reproduction Congress TIAR-2024



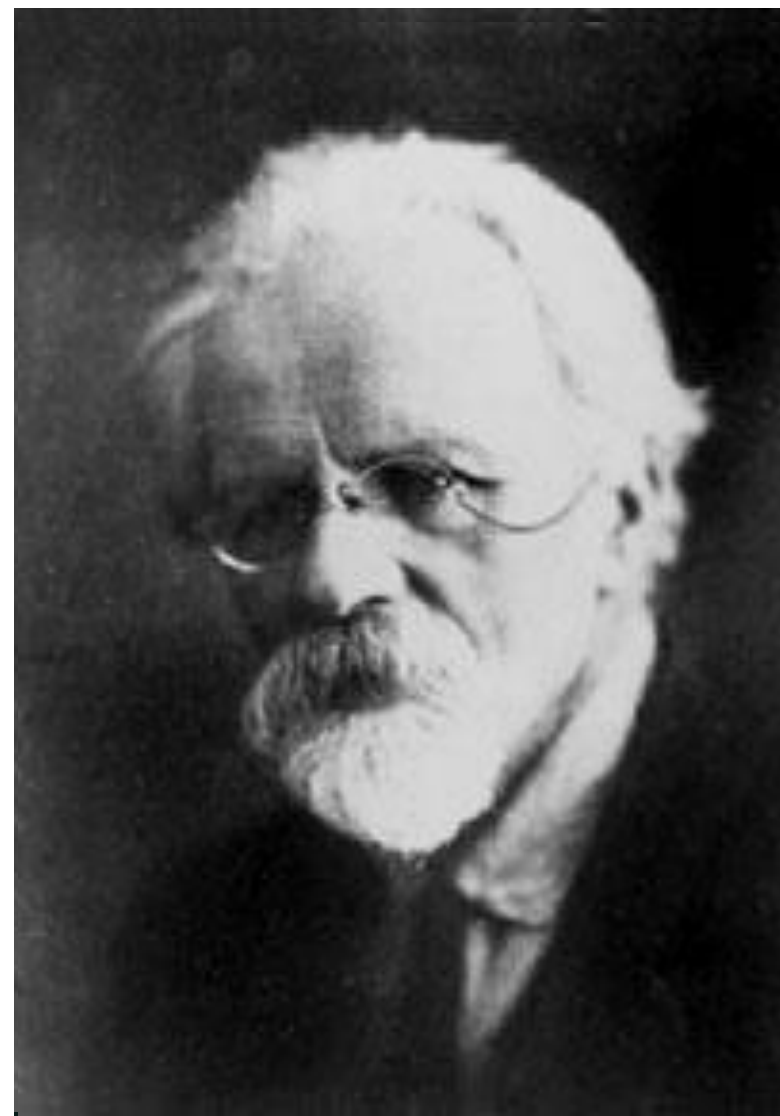
Milk production



- Hygiene
- Preventive veterinary practices
- Nutrition
- Stress
- Farm management
- Environmental factors
- Global warming effects

Artificial Insemination (AI)

Ilya Ivanoviç Ivanov



History

The practical application of AI in farm animals began in 1899 in Russia by Ilya Ivanovich Ivanov.

By 1938, it was estimated that about 40,000 mares, 12 million cows, and 15 million sheep were bred through AI in Russia.

Reproductive biotechnology

- It allows for better utilization of breeding stock
- Reduces the dangers and costs of keeping males on the farm
- Allows the use of multiple sires

Education and skill

- we must detect estrus correctly,
- inseminate at the right time, and proper technique
- follow proper semen preservation, storage, transport and preparation for AI procedures

Organization

- AI service also needs to be coordinated with a national organization managing herd records and livestock breeding programs achieving expected results,



Viktor Konstantinovich
Milovanov

Türkiye

1926



Global Veterinary Market Size
7.13 Billion Dollar



Current Situation



Economic Value of
Missed Pregnancies

\$68.25.



Need for Comprehensive
Training and Skill
Development

evaluation mistakes

Analyzing the answers Identified problems and solution suggestions do not show consistency.

- Practitioners can point to every factor other than AI as the source of the problem.
- The business begins to look for the problem in other areas except AI
- The success of the artificial insemination also becomes questionable.

This may seem like an exaggerated conclusion, but what my 30 years of animal reproduction education experience has shown me is this;
Artificial Insemination is at the heart of businesses' farm operations.

Which methods do you use to increase the success of AI in cows?

- Reproductive tract treatments (17.4%)
- Ration changes (47.8%)
- Stress management (13.0%)
- Herd replacement (8.7%)
- Increasing estrus detection rate (15.0%)
- General health screening (21.7%)
- Detection of repeat breeders (30.4%)
- Reproductive screening with ultrasound (47.8%)

What factors do you evaluate to assess the success of an artificial insemination program?

- Pregnancy rate per insemination (23%)
- Birth rate (11%)
- Stillbirth rate of calves (5%)
- Genetic diversity within the herd (4%)
- Health of the offspring (1%)

What are the most common causes of failure in artificial insemination?

- Technical errors (11%)
- Health problems of the cow (17%)
- Semen quality (6%)
- Timing errors (19%)
- Pet owner observation mistakes (1)

Artificial Insemination in Turkey by Numbers

Number of cattle: 16,421.000

Number of milking cow: 6,500.000

Number of inseminated cow: 1,202,717

Number of imported semen doses: 3.2 million

Semen production: 933 thousand doses

4 inseminations per pregnancy

moving away from AI

Genetic Stagnation
and
Disease Spread



Anatolian Wild Sheep

Bull use halts genetic progress.

Focusing on the offspring yield parameter hides the genetic advancement program.

Bull use spreads diseases, especially venereal diseases transmitted through mating, posing a significant danger and causing productivity losses for businesses.

The need for bull diversity increases the risk of disease and management.

Lack of genetic diversity brings about inbreeding and genetic problems.

How to Change ?



**Education &
Training**

Continuous Training & Policy

The validity period of practitioners' insemination certificates should be extended by requiring them to attend refresher programs such as certain training/seminars/conferences every two years.



Farm-Based Solution Proposals with AI

ART's in Goat & Alpaga
in Turkey and Italy
supported by Tubitak, CNR & AU BAP



Could A Decision Making Artificial Intelligence help Artificial Insemination?

Welcome to
www.tiar2024.org

Prof. Dr.
Ali Daşkın

Thank you for listening

We are pleased to invite you
“Turkish & Italian
International Congress of
Animal Reproduction”

Amara Luxury Resort,
Kemer, Antalya, Türkiye
10-13 October, 2024